


A Busy Clinician's Guide to Seniors with Memory Loss

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Let's talk about:

- What is dementia?
- Risk factors; some new info!
- Workup
- Treatment
 - Standard
 - Aducanamab
- Caregivers
 - A word on COVID 19
- Take Home Points
 - References

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Alzheimer's Facts & Figures

More than **5 million** Americans are living with Alzheimer's

1 in 3 seniors dies with Alzheimer's or another dementia

It kills more than breast cancer and prostate cancer combined

Between 2000 and 2018 deaths from heart disease have decreased **7.8%** while deaths from Alzheimer's disease have increased **146%**

6th Alzheimer's disease is the leading cause of death in the United States

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What is Normal for Aging Brains??

- Forgetting names!!
- Paying attention takes more effort
- Having trouble multitasking
- Slower processing; ex. Jeopardy®
- Remembering later!

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What is not normal aging??

10 warning signs of dementia

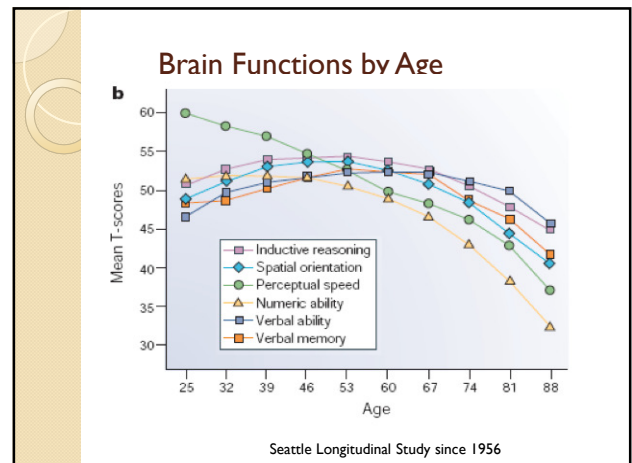
1. Memory loss
2. Difficulty performing familiar tasks
3. Problems with language
4. Disorientation to time and place
5. Poor or decreased judgement
6. Problems keeping track of things
7. Misplacing things
8. Changes in mood and behaviour
9. Challenges understanding visual and spatial information
10. Withdrawal from work or social activities

If these signs are new, they may be a sign of dementia. Dementia is not a normal part of aging. Speak to your doctor or contact your dementia and Alzheimer association.

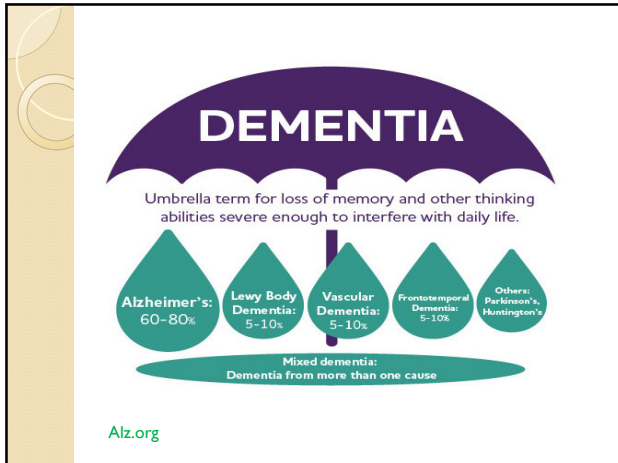
www.alzint.org



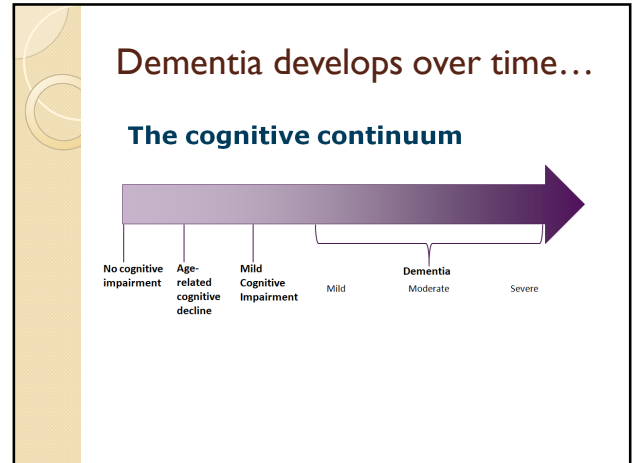
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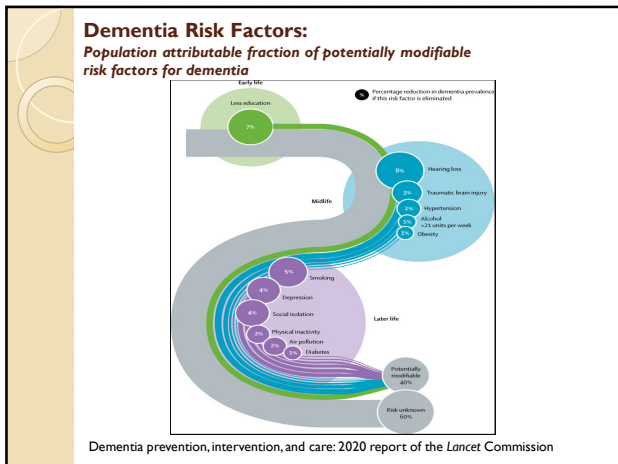
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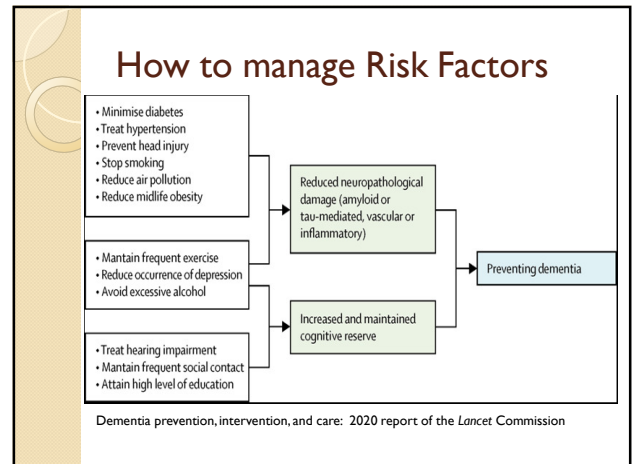
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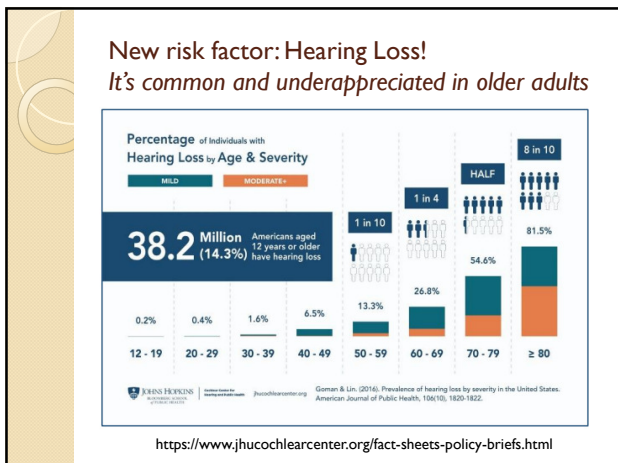
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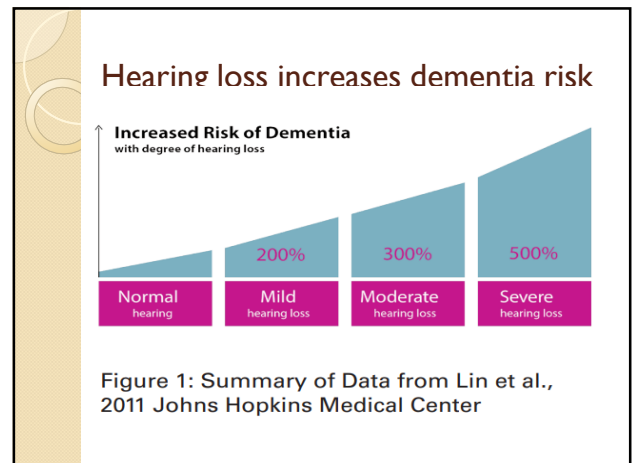
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Should we screen for dementia? (*actually, a complicated question...*)

- USPSTF finds insufficient evidence to recommended routine screening for dementia (*update 2013*)
- But “clinicians should remain alert to early signs or symptoms of cognitive impairment and evaluate their pts as appropriate”
 - Ann Int Med 2013; 159:601-612

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The thing to remember with dementia pts...

- Do pts with dementia fail to report their symptoms?
 - FREQUENTLY!
- Do pts with dementia look impaired?
 - RARELY!
- Do families think “just normal aging”?
 - ALL THE TIME!
- **We should screen all older patients !**

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Why screen for dementia? “We can’t cure it”...

- Dementia is a chronic disease like diabetes or heart failure
 - Can’t cure those either...
- Early detection can lead to
 - More effective treatment
 - Less isolation and inactivity
 - Family assistance
 - Advance Care Planning
 - Recognition of driving issues
 - Discuss future living situations

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Medicare Annual Wellness Visit

- CMS **requires** cognitive assessment but does not recommend one specific tool
- Alzheimer's Association recommends a brief structured assessment with Mini-Cog, GPCOG, or MIS (and informant interview if available)
- www.alz.org/HCPS

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How to screen for memory loss?

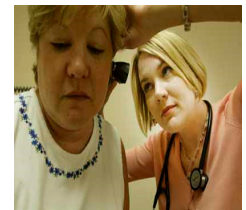


- History
 - From the patient
 - From the family
- Bedside Memory Testing
 - General information
 - Remembering words
 - Draw a clock
 - List animals in 60”
 - Mini Mental Exam and others
 - Clock Drawing Test
- <https://www.alz.org/professionals/health-systems-clinicians/cognitive-assessment>

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Barriers to Performing the Mental Status Exam in the Office

- Time constraints
- Lack of confidence in own skills, or tests' sensitivity
- Fear of offending patient by asking mental status questions




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Limitations of the MMSE

- 10-15 minutes to administer
- Language and cultural content (e.g. no ifs, ands, or buts)
- Highly educated individuals can score 28/30 or higher and still have dementia
- Does not assess executive function and so can miss frontotemporal dementia
- Copywritten!



Folstein MF et al. J Psychiatr Res. 1975; 12:189-98.

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Best Screening Test: The Mini-Cog!

- The Mini-Cog is 3 words, a clock-drawing test (CDT), and the 3 word recall test
- The three words tests memory
- The CDT tests executive functioning
- Takes 2-3 minutes
- Detects mild dementia
- Less language/culture/education bias

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Mini-Cog® Instructions for Administration & Scoring

Step 1: Three Word Registration

Look directly at person and say: "Please listen carefully. I am going to say three words that I want you to repeat back to me now and try to remember. The words are (select a list of words from the versions below). Please say them for me now." (If the person is unable to repeat the words after three attempts, move on to Step 2 (Clock Drawing)).

The following and other word lists have been used in one or more clinical studies. For repeated administrations, use of an alternative word list is recommended.

| Version 1 | Version 2 | Version 3 | Version 4 | Version 5 | Version 6 |
|-----------|-----------|-----------|-----------|-----------|-----------|
| Banana | Leader | Village | Flower | Captain | Daughter |
| Buncheon | Season | Kitchen | Beaten | Gardener | Chickens |
| Chair | Table | Baby | Finger | Picture | Mountain |

Step 2: Clock Drawing

Say: "Next, I want you to draw a clock for me. First, put in all of the numbers where they go." When that is completed, say: "Now, set the hands to 10 past 11."

Use preprinted circle (see next page) for this exercise. Repeat instructions as needed as this is not a memory test. Move to Step 3 if the clock is not complete within three minutes.

Step 3: Three Word Recall

Ask the person to recall the three words you stated in Step 1. Say: "What were the three words I asked you to remember?" Record the word list version number and the person's answers below.

Word List Version: _____ Person's Answers: _____

| Scoring | |
|-----------------------------------|--|
| Word Recall: _____ (0-3 points) | 1 point for each word spontaneously recalled without cueing. |
| Clock Draw: _____ (0 or 2 points) | Normal clock = 2 points. A normal clock has all numbers placed in the correct sequence and approximately correct position (e.g., 11, 2, 3, 4) and at least another 2 numbers with no missing or duplicate numbers. Hands are pointing to the time 10 past 11 (10:10). Hand lengths are as expected. Points are awarded as follows: 2 = correct placement, 1 = error. |
| Total Score: _____ (0-5 points) | Total score = Word Recall score + Clock Draw score. |

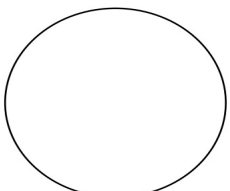
A cut point of <3 on the Mini-Cog® has been validated for dementia screening for many individuals with clinically meaningful cognitive impairment with some degree. When greater sensitivity is desired, a cut point of <4 is recommended as it may indicate a need for further evaluation of cognitive status.

<https://mini-cog.com/mini-cog-instrument/standardized-mini-cog-instrument/>

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Clock Drawing

ID: _____ Date: _____



References

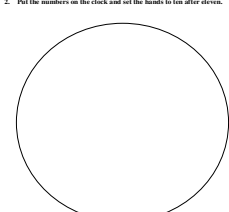
1. Borson S, Scanlan JM, Chen PJ et al. The Mini-Cog as a screen for dementia: Validation in a population based sample. J Am Geriatr Soc 2003;51: 1421-1424.
2. Borson S, Scanlan JM, Wyalababe J et al. Improving identification of cognitive impairment in primary care. Int J Geriatr Psychiatry 2004;23: 389-395.
3. Lewis M, Scanlan J et al. Time that takes: Critical clock-drawing errors for dementia screening. Int Psychogeriatr 2008 June; 20(3): 459-470.
4. Tsai K, Chang J et al. Cognitive tests to detect dementia: A systematic review and meta-analysis. JAMA Intern Med 2015; 175: 1292.
5. McCarter J, Anderson P et al. Screening for cognitive impairment in an elderly veteran population: Acceptability and results using different versions of the Mini-Cog. J Am Geriatr Soc 2011; 59: 309-313.
6. McCarter J, Anderson P et al. Finding dementia in primary care: The results of a clinical demonstration project. J Am Geriatr Soc 2011; 59: 219-227.
7. Scanlan J & Borson S. The Mini-Cog: Receiver operating characteristics with the expert and naive raters. Int J Geriatr Psychiatry 2001; 16: 216-222.

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Clock Drawing Test:

Patient Name: _____ DOB: _____
 Today's Date: _____ Examiner: _____ ENCF: _____

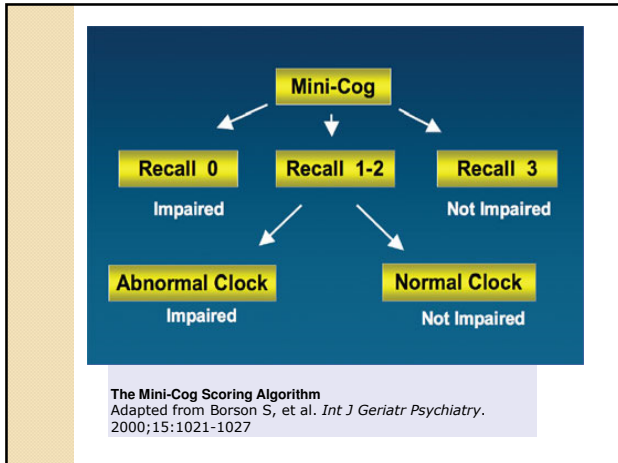
1. Remember these 3 words: _____
2. Put the numbers on the clock and set the hands to ten after eleven.



- Simple but useful
- Tests both sides of the brain
- Not dependent on verbal skills
- Non-threatening to patients

3. Word Recall: 1 2 3
 4. CDT: N Abn
 5. Interpretation: _____

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Does the Mini-Cog work?

- The Mini-Cog was significantly ($P < 0.001$) better than PCPs in recognizing the early stages of dementia.
- The Mini-Cog was better ($P < 0.01$) than PCPs in detecting dementia among minority patients, English as second language, or low levels of education.
- Mini-Cog's performance ranged from 85% to 100% across the spectrum of dementia diagnoses, possibly because the Mini-Cog includes a screen for executive dysfunction as well as memory.

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Wanna get fancy? Add "Animal Naming"

- "Name as many animals as you can in 60 seconds."
- Animal Naming < 14 in 60 seconds is impaired
- Wisconsin Alzheimer's Institute (WAI) found a sensitivity of 85% and specificity of 88% for this score
- Table: Wisconsin Dementia Research Consortium Study Animal Naming Results

| Diagnostic Group | Abnormal <14 | Normal > 14 |
|---------------------|--------------|-------------|
| Normal Cognition | 12% | 88% |
| Alzheimer's Disease | 85% | 15% |
| Other Dementia | 85% | 15% |

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CLOCK DRAWING TASK

INSTRUCTIONS:
In the space below, please draw the face of a clock and put the numbers in the correct positions.
Now, draw in the hands at ten minutes after eleven.

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CLOCK DRAWING TASK

INSTRUCTIONS:
In the space below, please draw the face of a clock and put the numbers in the correct positions.
Now, draw in the hands at ten minutes after eleven.

Animals in 60"
dog
lion
zebra
cat
pumpkin
cow
horse
sheep

mmse 22

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Clock Drawing Task

Instructions:
In the space below, please draw the face of a clock and put the numbers in the correct positions. Then, draw in the hands at ten minutes after eleven.

20212223
24
25
26
2728
29
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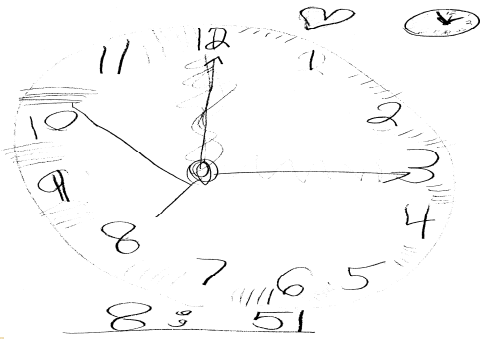
Animals in 60 seconds:

| | |
|-----------------|-----------------------|
| 1. cat | 11. dog |
| 2. lion | 12. lion |
| 3. horse | 13. horse |
| 4. pig | 14. pig |
| 5. cow | 15. cow |
| 6. white rabbit | 16. 4 animals, repeat |
| 7. deer | 17. 30 |
| 8. bear | 18. |
| 9. chipmunk | 19. |
| 10. shark | 20. |

Name: _____
Date: _____

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Truly Disturbing; an 8 year old female



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The Dementia Workup

- Physical exam
 - Look at the gait, neuro exam
 - Neuro exam is usually normal in early/ mod Alz Dis
- Blood work
 - Thyroid, B12, chemistry panel, UA, CBC
- CT or MRI (with and without) of the brain
- Medication review
 - Adherence, OTCs (e.g. diphenhydramine ☹)
- Alcohol intake review
- Sleep

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© 2003 Benita Epstein

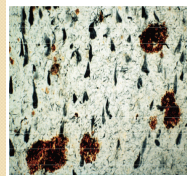


"The labs are back."

Almost always, labs are normal and that is consistent with Alzheimer's Disease

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We can make the diagnosis of AD!



- **History: Slowly progressive cognitive decline without any of these other syndromes**

- **Vascular**
 - Abrupt onset of neuro symptoms
 - Changes on neuroimaging consistent with strokes
 - Multiple CV risk factors

- **Lewy Body Dementia**

- Fluctuations in Disability
- Visual Hallucinations
- Parkinsonism

- **Frontotemporal Dementia**

- Younger ages (50-70)
- Early changes in behavior/personality disinhibition, apathy, loss of sympathy/empathy
- Early changes in language
 - Word finding difficulty → anomia

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Rarely Needed: Neuropsychological Testing

- Done by PhD psychologists
 - My favorite is Dr Mercury ☺
- Paper and pencil tests
 - Takes about half a day to complete
- Essential for legal or financial issues
 - Where you need a comprehensive assessment of the patient's cognitive and functional status

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Pharmacologic Management: Acetylcholinesterase Inhibitors:


- Donepezil (Aricept®), galantamine (Razadyne®), rivastigmine (Exelon®)
- All are FDA approved for Alz Dis
- Rivastigmine is also approved for dementia in Parkinson's
 - Use the patch not the pills
- These are not curative; only delay disease progression

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Pharmacologic Management: Memantine (Namenda®)


- Indicated for mod-severe Alz Dis
- Can be used as monotherapy or as an add-on
- Relatively few side effects
- May see some dizziness or increased confusion
- **Decrease dose with renal insufficiency!!**

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An initiative of the ABIM Foundation

American Geriatrics Society



Ten Things Clinicians and Patients Should Question

6 Don't prescribe cholinesterase inhibitors for dementia without periodic assessment for perceived cognitive benefits and adverse gastrointestinal effects.

Although some randomized control trials suggest that cholinesterase inhibitors may improve cognitive testing results, it is unclear whether these changes are clinically meaningful. It is uncertain whether these medicines delay institutionalization, improve quality of life or lessen caregiver burden. No studies have investigated benefits beyond a year nor clarified the risks and benefits of long-term therapy. Clinicians, patients and their caregivers should discuss treatment goals of practical value that can be easily assessed and the nature and likelihood of adverse effects before beginning a trial of Cholinesterase inhibitors. If the desired effects (including stabilization of cognition) are not perceived within 12 weeks or so, the inhibitors should be discontinued.

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VIEWPOINT The Rise of Pseudomedicine for Dementia and Brain Health

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The US population is aging, and with it an increasing prevalence of Alzheimer disease, which lacks effective approaches for prevention or a cure. Many individuals are concerned about developing cognitive changes and dementia. With increasing amounts of readily accessible information, people independently seek and find material about brain health interventions, although not all sources contain quality medical information. This landscape of limited treatments for dementia, concern about Alzheimer disease, and wide access to information have brought a troubling increase in "pseudomedicine." Pseudomedicine refers to supplements and medical interventions that exist without the evidence and often promoted as scientifically supported treatments, but lack credible efficacy data. Practitioners of pseudomedicine often appeal to health concerns, promote individual testimony as established fact, advocate for aggressive therapies, and deliver false claims. With neurodegenerative disease, the most common example of pseudomedicine is the promotion of dietary supplements to improve cognition and brain health. This \$3.2 billion industry promoting brain health

to describe endowors that follow...the apparent precepts and forms of scientific investigation, but they're missing something essential... "Cognitive science is apparent in several promising consumer health supplements. "Incidence" is presented in a scientific-sounding format that lacks actual substance and rigor. Key words suggested feature of scientific integrity is "tending over" but search to show how [the study] may be wrong... which is a feature that is often lacking when interventions are promoted for financial gain."

A similarly concerning category of pseudomedicine involves interventions promoted by licensed medical professionals that target unestablished etiologies of neurodegenerative disease (eg, metal toxicity, mold exposure, infectious causes, such as Lyme disease). Some of these practitioners may stand to gain financially by promoting interventions that are not covered by insurance, such as intravenous nutrition, personal detoxification, chelation therapy, antibiotics, or stem cell therapy. These interventions lack a known mechanism for treating dementia and are costly, unregulated, and potentially harmful.

Recently, detailed protocols to reverse cognitive changes have been promoted, but these protocols merely repackage known dementia interventions (eg, cognitive training, exercise, plant-based diet) and add supplements and other lifestyle changes. Such protocols are promoted by medical professionals with legitimate credentials, offer unique value, and promote personal growth, and are widely published in reputable journals. However, they are not supported by rigorous data published in reputable journals. How

Patients and caregivers encounter sophisticated techniques that supply false "scientific" backing for brain health interventions.


benefits from high-penetration consumer advertising through print media, radio, television, and the internet.²

https://jamanetwork.com/journals/jama/fullarticle/2723294

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Have they hit you up yet?

- Aducanumab is the first new AD med in over 20 years!
- Promotes clearance of Aβ
- Phase I trials not promising, so drug dismissed 3/19
- Restarted phase 3 trials → FDA approved June 2021
 - "accelerated approval"
 - "stunning turnaround"
- Original sticker price was \$56,000
 - Now on "sale" at \$28,000

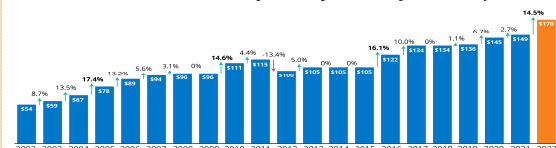


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Biogen's initial launch price of \$56,000 a year for Aduhelm led to an increase of nearly \$22 in Medicare's monthly "Part B" premium for outpatient care, the largest ever in dollar terms ... Medicare attributed about half of this year's increase to contingency planning for Aduhelm. Faced with skepticism over its medication, Biogen recently slashed the price to \$28,200, but Medicare enrollees were already on the hook for the \$170.10 premium. Health and Human Services Secretary Xavier Becerra has directed Medicare to reassess the premium increase

The Medicare Part B Premium Rose to \$170.10 per Month in 2022

14.5% Increase is Among the Largest in Program History



| Year | Premium | % Change |
|------|----------|----------|
| 2002 | \$54 | 8.7% |
| 2003 | \$59 | 13.5% |
| 2004 | \$67 | 13.5% |
| 2005 | \$74 | 10.3% |
| 2006 | \$78 | 5.2% |
| 2007 | \$89 | 14.1% |
| 2008 | \$90 | 1.1% |
| 2009 | \$90 | 0% |
| 2010 | \$97 | 7.7% |
| 2011 | \$111 | 14.4% |
| 2012 | \$113 | 1.8% |
| 2013 | \$119 | 5.3% |
| 2014 | \$120 | 0% |
| 2015 | \$120 | 0% |
| 2016 | \$122 | 1.6% |
| 2017 | \$127 | 4.1% |
| 2018 | \$132 | 3.9% |
| 2019 | \$136 | 3.0% |
| 2020 | \$145 | 6.6% |
| 2021 | \$167 | 15.1% |
| 2022 | \$170.10 | 14.5% |

NOTE: Monthly premiums are rounded in this exhibit.
 SOURCE: KFF analysis of the 2022 Annual Report of the House of Representatives on the Budget and Fiscal Year 2022 Supplemental Medical Insurance of Trust Funds and CMS, "Medicare Programs: Medicare Part B Monthly Actuals by Rates, Premiums, Part B, and Annual Supplemental Deductible Beginning January 1, 2022," 26 Federal Register (4/20/2022), November 17, 2021. **KFF**

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Medicare limits coverage of \$28,000-a-year Alzheimer's drug

By REBECCA ALBERG ZALPHAN | January 10, 2022



WASHINGTON (AP) — Medicare will Tuesday slash coverage of a \$28,000-a-year Alzheimer's drug that benefits have been widely questioned. A major development in the nation's long effort to curb the rise of new medicines that offer tantalizing possibilities but cause high disability rates.

The United States remains the only nation to require Medicare and Medicaid enrollees to pay for health care. Medicare is the largest program, covering about 65 million people. Medicaid is the second largest, covering about 40 million people. The two programs are jointly administered by the Department of Health and Human Services and the Social Security Administration.

https://apnews.com/article/business-health-medicare-medicaid-medication-medicare-78842ee6a557185861e4e980d96c29d3

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Stay tuned...

- Several medical centers — including Cleveland Clinic, Johns Hopkins, the University of California at Los Angeles and the University of Michigan — have said they [are not offering](#) the drug because of a lack of convincing evidence of effectiveness, according to the medical news site Stat.
- Patient selection for Aduhelm®:
 - Very early AD or MCI
 - Confirmation of amyloid plaques
 - CSF A β
 - Amyloid PET scan
 - NOT on anticoagulation
 - Side effect is microhemorrhages (ARIA)
 - Later stage AD or unstable illnesses

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A last resort...



Black box warning!!!

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Primary Care Issues in Patients With Dementia

- **Minimize sensory deprivation**
 - Cataract surgery?
 - Hearing aids?
- **Wellness issues**
 - Immunizations
 - DEXA scan, ? Mammograms
- **Treat intercurrent illnesses, esp. UTI/ CAP**
 - Which may present with delirium!
- **Watch weight**
 - A marker of nutrition as well as living situation

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Primary Care Issues in Patients With Dementia

- **Ask about sleep**
 - Review sleep hygiene
 - Consider trazodone or melatonin or mirtazapine (Remeron)
- **Ask about incontinence**
 - Toileting program
 - Urogyne or urology evaluation
 - Be careful with cholinergic meds!
 - Limited efficacy
 - They are "anti-Aricept"!

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Primary Care Issues in Patients With Dementia, cont'd

- Plan on seeing these patients every 3-4 months
 - Better than getting BOMBED once a year...
- Have resources in your office
 - Local senior centers
 - alz.org website
 - Adult day care programs
 - Community-based social workers

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Primary Care Issues in Patients With Dementia, cont'd

- **Brown Bag Medication review**
 - May be the most important thing you do!!
 - Aim for once daily or BID meds
 - Pill box! A big one?
- No "PM" products → dry eyes, mouth, constipation, urinary retention and confusion



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Do the Brown Bag Test!



- Go through
 - the medicine cabinets
 - Bedside tables
 - Kitchen table
 - Cupboards
 - If you dare, the **Purse!**


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Dr Vicki's First Rule of Geriatrics


- If a bad thing is happening to a patient, a drug did it til proven otherwise
- Remember, these folks have old kidneys, livers, brains



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Caregivers

- "This disease affects caregivers more than the patients"
- Caregivers tend to be:
 - female (70+%)
 - elderly (spouses)
 - or sandwich generation (daughters, dtrs-in-law)
 - emotionally, financially, physically vulnerable
- Ask 'em how they're doing! (Burden Interview)
- Provide and encourage resources and respite




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Facts & Figures

In 2020, Alzheimer's and other dementias will cost the nation **\$305 billion** — By 2050, these costs could rise as high as **\$1.1 trillion**


These caregivers provided an estimated 18.6 billion hours valued at nearly **\$244 billion**



16 million Americans provide unpaid care for people with Alzheimer's or other dementias



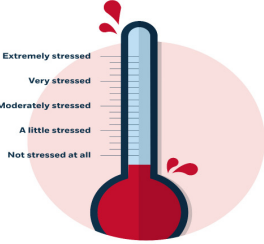
50% of primary care physicians believe the medical profession is not ready for the growing number of people with Alzheimer's or other dementias



www.alz.org/facts

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My Stress Thermometer:



STRESS: *Feeling tense, nervous, anxious, restless, or unable to sleep because your mind is troubled all the time.*

Please mark your current stress level on the thermometer

©S. Borson | Reference: Elo A-L, Leppänen A, Juhkola A, Scand J Work Environ Health 2003;29(6):444-451.

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COVID-19 Symptoms and those with Memory Loss

- In addition to the typical symptoms...
- Falls
- Fatigue
- Confusion/Delirium
- Poor oral intake
- Abnormal vital signs
- Multiple tests often needed to confirm dx

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COVID-19 Precautions and Impact on People with Alzheimer's

- Isolation → Anxiety, Depression, Stress
- Lack of preferred supervision → poorer outcomes
- Lack of routine and social interaction → decreased baseline and delirium
- Decreased access to essential items: food!



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References

- Dementia prevention, intervention, and care: 2020 report of the Lancet Commission
 - [https://www.thelancet.com/article/S0140-6736\(20\)30367-6/fulltext](https://www.thelancet.com/article/S0140-6736(20)30367-6/fulltext)
- Hearing and Dementia
 - <https://www.jhucochlearcenter.org/frank-r-lin.html>
- Alz.org
- ChoosingWisely.org

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Thank you!



Feel free to contact me for questions!
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